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THE JAPANESE CRISIS – A CASE OF STRATEGIC FAILURE?*

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This paper provides an alternative insight into Japan's current economic problems. We concentrate upon the role played by the economy's central actors, namely Japan's transnational corporations. Since the early 1980's, Japan's transnationals have become dominant players in the global economy, and now have a higher rate of physical investment in new, overseas greenfield sites than their competitors. This has had detrimental consequences for Japan's domestic economy, particularly for small firms who operate in keiretsu networks. This has led to concerns about the 'hollowing out' of Japan's domestic industry raising the possibility of long-term industrial decline and 'strategic failure'.

Throughout the 1990's, the Japanese economy has been plagued by a number of economic crises. The 1989 Tokyo stock market crash was subsequently followed by a collapse in property values (1991), recession (1991–3), stagnant growth, a fiscal and financial crisis (1997) and recession again (1998–9). For Japan, these problems of economic stagnation are a new, unwelcome experience. The post-war years have been an extremely successful period of economic growth for the Japanese economy. The foundations for this success were laid by the State pursuing a unique industrial strategy that not only complemented Japan's co-operative style of industrial organisation, but also encouraged investment in 'strategic' industries and a nurturing of Japan's small business sector. Indeed, during the 1970's and 1980's, Japan's 'Developmental State' had become accepted as a role model for industrialisation and economic development (Johnson, 1982).

Although initially surprised by Japan's recent decline, many Western commentators have tried to explain the crisis with the standard tools of economic analysis. Typically, the mainstream argument is that the high post-war growth rates of Japan (and her East Asian neighbours) were the result of a State sponsored high investment policy rather than improvements in productivity (Krugman, 1994). Hence, the slowdown of the 1990's merely reflects one of the first rules of economics – the law of diminishing returns. Since (Japanese) businesses are no longer able to generate the high returns of the recent past, they have been unable to repay loans thus creating problems for the financial sector. In addition, because Japan is a highly regulated economy – possibly

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susceptible to bureaucratic corruption – there is less flexibility for market forces to operate efficiently to generate economic revival.

We believe that this simple analysis is unsatisfactory for two related reasons. Our first concern is that Western perceptions of Japan's current demise are often made with little or no deep understanding of the nature of Japan's political economy. Furthermore, the majority of Western insights are essentially ideologically based and are built upon the pre-conceived notion that the Anglo-American style of free market capitalism is inherently superior to the Japanese model and the Developmental State (Higgott, 1998). In our view, this type of approach is unlikely to provide any helpful long term policy conclusions since it typically ignores the polity, culture and the historical and industrial structure of Japan. Indeed, as Higgott (1998) argues, any suggestions the approach offers are more likely to prove counter-productive.

Our second criticism is more fundamental and forms the main basis of this paper. We are concerned that standard neo-classical interpretations of Japan's current problems fail to take account of the role and activities of Japan's central economic actors, namely her large transnational corporations. It should be remembered that, despite Japan's domestic economic decline, her transnationals continue to play a dominant and influential role in the global economy. Since the early 1980's, the growth in Japanese Foreign Direct Investment (FDI) has been dramatic. In 1980, corporate Japan was still a small, marginal player in terms of global FDI flows, with a 3% share. By 1997, corporate Japan was a world leader with an approximate 12% share, second only to that of the corporate sector of the United States (UNCTAD, 1999). More significantly, given that the majority of global FDI flows represent mergers and acquisitions, it is now Japan's transnationals which have the highest rate of overseas physical investment in the world (Lawrence, 1993; Yamawaki, 1994).

In this paper, we will suggest that the pursuit of global, corporate interests by Japan's large transnationals has been sub-optimal for Japan's domestic industrial economy. For instance, the increase in outward FDI flows may not only divert new investment from Japan's industrial regions, but also enhances the ability of Japan's large transnationals to outsource their production globally. This has led to a reduction in the demand for intermediate goods supplied by Japan's small business sectors and, in particular, 'the keiretsu' firms who have become 'isolated' due to the increasing trend towards overseas production (JSBRI, 1996).

The wider consequences have been manifestly evident during the 1990's, with a significant rise in the number of bankruptcies and small business failures. In addition, industrial productivity has barely risen since 1990, whilst between 1992 and 1996, the economy lost one million manufacturing jobs, with another 1.25 million expected to disappear before the year 2000 (Katz, 1998). The result has been a decline in Japan's domestic industrial capacity, raising concerns about a 'hollowing out' of Japanese industry (Fujita and Hill, 1989; JSBRI, 1996).

We see the possible 'hollowing out' of Japan's industrial base in terms of a

'strategic failure', a situation which may arise as a consequence of strategic decisions on key economic variables, such as investment, output and employment, being made by elite, centralised corporate hierarchies whose interests conflict with the broader objectives of society. Furthermore, there is then no market mechanism available for society to redress the balance and achieve what it regards as a socially desirable and efficient outcome (Cowling and Sugden, 1994).

The Japanese case presents an interesting area for analysis since, historically, the Japanese State can be seen to have tried to reduce the risks of 'strategic failure' by effectively, constraining the freedom of Japan's large corporate firms and promoting an institutional style of capitalism. In particular, Japanese governments have pursued policies which, to some extent, controlled the direction of industry and monitored the behaviour of the large corporate group. However, over the years the power of the Japanese State, in relation to the large corporate firms, may be seen to have been diminished, undermining its ability to control economic decision-making. This shift in power may have been voluntary or enforced, but the result is that the Japanese economy is now more vulnerable than before to the activities of its transnational corporations.

In the remainder of this paper we take an historical perspective to explore these arguments. We begin by examining the Japanese model and identifying the factors, which enabled Japan's post-war economy to successfully outperform her main industrial rivals. In doing so, we review Japan's industrial policy, organisation and corporate governance and highlight the inconsistencies which we believe are related to the present situation. Finally, we make some observations and suggestions on the direction for future economic development.

1. Japan's Industrial Structure and Economic Development

1.1. *Japan's Post-War 'Economic Miracle'*

According to Johnson (1982), Japan's post-war economic performance is nothing short of an 'economic miracle'. In 1945, the Japanese economy was in ruins, the Second World War had devastated the country's infrastructure, and there was a severe shortage of both industrial and financial capital and foreign exchange. Yet, just a few years later, throughout the industrialised world's 'Golden Age' (1956–73), the Japanese economy was able to out-perform her main international rivals on almost any of the key economic indicators (see Table 1). For instance, during this period, Japan's average growth in Gross Domestic Product (GDP) and labour productivity were approximately three times greater than that of both the United States and the United Kingdom and twice that of Germany and France.

In the aftermath of the 1970's oil crises, the world economy began to slowdown, but Japan's economic performance was still regarded as being very favourable compared to other industrialised countries (see 1974–1991, Table 1). Japan's relatively high economic growth appeared sustainable and, by the

Table 1

Comparison of Economic Performance 1956–98: Average Annual % change in GDP, Employment and Output per worker and Inflation and Unemployment rates

	GDP Average growth rate	Average growth in employment	Average growth in output per worker	Inflation rate*	Unemployment rate
1956–73					
Japan	9.4	1.4	8.0	5.3	1.3
USA	3.6	1.6	1.9	3.3	4.8
Germany†	4.8	0.5	4.3	3.9	0.8
France	5.4	0.5	4.8	5.3	1.7
UK	3.1	0.3	2.8	4.5	1.9
1974–91					
Japan	3.8	1.1	2.7	4.9	2.3
USA	2.5	1.8	0.7	6.1	7.0
Germany	2.4	0.4	2.0	3.5	5.8
France	2.4	0.3	2.1	8.0	7.5
UK	1.8	0.4	1.4	10.0	7.0
1992–8					
Japan	2.4	0.3	2.1	0.7	3.1
USA	4.6	1.6	3.0	0.2	5.9
Germany	3.0	(0.5)	3.5	2.5	9.8
France	3.2	0.2	3.0	1.7	11.8
UK	4.0	0.4	2.6	3.0	7.8

Notes:
* GDP Deflator.
† Before 1992, figures relate to West Germany only.
Sources: Graham and Seldon (1990).
OECD Historical Statistics (CD-ROM Edition 1999), Paris.

1980's, the country had become, in terms of GDP, the world's second largest economy. It was this economic success that encouraged Johnson (1982) to propose a 'Japanese model' for economic prosperity. The 1990's, of course, have been a different story and, since 1991, the Japanese economy has suffered a number of economic crises, including two recessions (1991–3 and 1998–9) which have contributed to a relative economic decline (see 1992–8, Table 1). We believe the persistence of Japan's recent stagnation is related to the economy's industrial organisation, although it appears to have been a positive factor during most of the earlier post-war period (Johnson, 1982). To understand what and why things have changed, it is important, therefore, to consider the origins of Japan's industrial structure, the style of corporate governance and the rationale behind Japan's industrial policy.

1.2. *The Rationale for a Developmental State*

For Johnson (1982), the foundation of Japan's extraordinary post-war economic success was the acceptance of a planned rational society and the Developmental State. In the Developmental State model, the State assumes an active

role in planning, supporting and guiding a market economy. In the Japanese case, the State nurtured a unique style of institutional capitalism, essentially focusing upon what Gershenkron (1962) identifies as the three pre-requisites of industrial development: close co-operation between the State and industry, a supportive banking sector and the promotion of social stability. Furthermore, Japanese industrial policy was co-ordinated between firms and across industries to ensure balanced growth and long-term stability.

Within this context, the economic rationale for the State to pursue an interventionist industrial strategy and balanced growth policies was related to the issue of development traps identified by Rosenstein-Rodan (1943) and, more recently, Murphy *et al.* (1989). According to these writers, the problem in small, developing and closed economies is that there is no incentive for individual firms to move into sectors where increasing returns to scale are possible because demand constraints prevent any firm industrialising from selling all its output and realising the minimum efficient scale. The inability of firms to co-ordinate their strategies and jointly adopt these new opportunities leads to a Nash equilibrium in which the economy fails to industrialise. Murphy *et al.* (1989) refer to this as a 'co-ordination failure'. The intuition is that to break out of the development trap, the State should pursue a 'Big Push' policy and encourage a number of complementary industries to adopt increasing returns technologies simultaneously. This consequently generates income, which, through various multiplier effects, becomes a source of demand for goods in other sectors, which enlarges markets and makes industrialisation profitable.

1.3. *Japan's Institutional Capitalism and Industrial Policy*

Historically, Japan's 'institution building' process can be traced to the Meiji Restoration of 1868, which created the modern Japanese State and initiated the country's industrialisation. However, it was not until the creation of the Ministry of Commerce and Industry (MCI), in 1925, that Japan began to pursue an activist industrial policy. The MCI was the first Japanese ministry to recruit specialist economic advisors and their directive was to pursue industrial polices to promote economic stability in the depths of the world recession. The MCI was an outward looking organisation, and officials regularly sought solutions from abroad. In particular the scientific management and production systems of the United States and the German model, which promoted big business cartels, technological innovation and efficiency, were studied and eventually adopted under the 'industrial rationalisation' plan. There were also policies for industrial finance and subsidies. From an early stage, the emphasis was on creating a co-operative, and yet competitive, economic environment that was more conducive for long-term success and stability as opposed to the highly cyclical nature of Anglo/American capitalism.

In April 1949, the MCI was superseded by the Ministry of International Trade and Industry (MITI), which was given complete autonomy over Japan's industrial policy. This new ministry was able to make long-term economic

decisions that were independent of changes in Japan's political climate. One of MITI's first tasks was to develop close links with Japanese business leaders, which facilitated a good, close working relationship between the State and industry. From an early stage, MITI's main policy was to select and promote 'strategic industries' to compete in international markets. Initially, during the 1950's and early 1960's these 'strategic industries' consisted of the heavy industries, iron and steel, shipbuilding and electric power. By the 1970's and 1980's the emphasis had shifted to industries producing consumer durables, namely automobiles and semi-conductors, whilst in the 1990's, MITI has tried to encourage higher technology industries such as advanced electronics and computer research (JSMA, 1993).

Over the last fifty years, these and other industries have benefited from measures such as discriminatory tariffs, preferential commodity taxes and import restrictions. According to Johnson (1982), it was the regulation of foreign trade that was particularly important in nurturing the development of Japanese industry. In the early post-war period, MITI imposed extensive import quotas on cheaper foreign goods that threatened Japan's infant industries. The quotas were implemented under the 1949 Foreign Exchange and Foreign Trade Control Law, which authorised MITI to allocate Japan's limited foreign exchange reserves to importers. However, by the mid-1960's, the quota system was under pressure from new GATT guidelines, whilst Japan's rising trade surpluses effectively restricted MITI's ability to ration foreign exchange (Katz, 1998). MITI responded by raising tariff levels, which varied between different industries. For instance, in 1963, the highest Effective Tariff Protection Rates (ETPR) were in MITI's designated 'strategic industries', the machinery sector, such as Transport equipment (61%), Electrical machinery (31%) and Precision instruments (35%). As the machinery sector developed and became internationally competitive, the tariffs were gradually reduced, to the extent that, by 1978, the ETPR in these industries were 3%, 7% and 6% respectively (Itoh and Kiyono, 1988).

During the same period, MITI's trade protection policies were supplemented with positive support to Japan's exporters. This included specific tax breaks, such as tax deductions on export earnings (1953–63) and accelerated depreciation allowances for exports (1964–71). These subsidies sometimes amounted to as much as 25% of profits (Itoh and Kiyono, 1988; Katz, 1998). An important development was the creation and expansion of the Japanese External Trade Organisation (JETRO), which supplemented the traditional role played by the general trading companies (the 'soga shosha'). By conducting market research and gathering information, JETRO was able to promote and secure contracts for Japanese exporters in new and existing overseas markets (Johnson, 1982).

MITI also encouraged Japanese industries to take advantage of imported technology that belonged to foreign competitors. This was primarily achieved through encouraging and manipulating licensing agreements and joint ventures, rather than allowing inward FDI (Ozawa, 1973). Indeed, under both the 1949 Foreign Exchange and Foreign Trade Control Law and the 1950 Foreign

Investment Law, inward and outward FDI was controlled by MITI. During the early years, the laws were strict and all FDI proposals were subject to approval by a governmental liaison committee, appointed by MITI. The overwhelming majority of these proposals were rejected and, although few official reasons were given, the restrictions can be seen as being complementary to MITI's aim of promoting domestic, infant industries, insulating them from the pressures of global competition.[1]

Finally, in addition to MITI, the post-war Japanese State also established institutions that have provided long-term finance for industry at preferential rates of interest. The Bank of Japan encouraged the development of the banking keiretsu, whereby groups of enterprises could collectively borrow funds, in excess of their net worth from city banks. The city banks, in turn, borrowed funds from the central bank, which guaranteed the system. The Ministry of Finance also set up the Japanese Development Bank, enabling funds to be directed from the postal savings system to MITI's designated 'strategic industries'.

1.4. *Industrial Organisation and the Importance of the Keiretsu*

The traditional basis of Japanese industrial organisation and production has been the 'dual structure' in which small and medium sized businesses act as subcontractors and provide intermediate goods and services within 'keiretsu' networks to the larger firms who are part of the corporate group or 'kigyo shudan' (Scher, 1997). The system is said to be characterised by the close co-operation and trust which exists between firms, whilst competition is based upon quality and reliability rather than price. A particular feature is that the prime firm, in the corporate group, effectively insures their sub-contractor's income stream, against fluctuations in demand. However, to counteract the problem of moral hazard, each sub-contractor is given an internal ranking, with poor performance leading to a loss of position and future business (Aoki, 1994).

Within each keiretsu network, the prime firm's main financial relationship is with its main bank, which provides not only long-term credit finance, but also, through being a major stockholder, assistance in financial and foreign markets and information about potential investment ventures. In addition, the main bank also provides financial support to members of the prime firm's keiretsu network, where the degree of support is linked to the sub-contracting firm's rank position. However, despite this influence, each firm is regarded as having its own autonomy, and the main bank only intervenes if the firm is in financial distress (Aoki, 1994).

Japan's small and medium sized firms play an important role in the domestic

[1] In terms of inward FDI, the concern was that foreign transnationals (mainly from the United States) would monopolise Japan's domestic markets at the expense of indigenous industry. Officially, outward FDI was discouraged to conserve 'foreign exchange', although there were genuine fears that the growth in offshore affiliates would lead to 'reverse exports' which, again, could harm less efficient domestic producers (Bailey *et al.*, 1994).

economy and they consistently account for over 99% of Japan's private business establishments, employing over 78% of the economy's workforce (JSBC, 1998). However, more significantly, the keiretsu system is a clear example of how firms, working within networks or clusters can generate economic growth and prosperity. In this respect, the keiretsu networks share similar characteristics identified in the 'industrial districts' literature attributed to Marshall (1919).

The theory of the 'industrial district' suggests that the direct interdependence between firms, through the market mechanism, generates external spillover effects, which are then exploited as agglomeration economies by the firms within a particular cluster. Examples of these agglomeration economies include not only 'technological' factors, such as labour market pooling and the sharing of local infrastructure, but also the diffusion of information such as new technology, advances in knowledge and changes in organisation. By generating these agglomeration effects, local industries reduce their costs and achieve increasing returns to scale which can be maintained through the centripetal forces that attract new industrial activity to the cluster (Krugman, 1995).

According to survey evidence by the Japan Small Business Research Institute (JSBRI, 1996), the widespread tendency in Japan for small businesses to cluster together within regional industrial groupings, has brought similar benefits. The competitive advantages offered by this form of collectivisation are said to include the 'ease of collecting and sharing of market information', the 'diffusion of technical knowledge' and the 'enhancement of product quality through the medium of competition with (local) rival companies'. It appears then, that the keiretsu networks provide the environment for Japanese firms to create linkages between themselves, which, in turn, generate these types of synergies, or positive spillover effects, which enhance the respective industrial sector's productivity and development.

However, it should, at this stage, be noted, that the relationships between firms within the Japanese keiretsu are quite different from those observed in the traditional European 'industrial districts' in Italy and Germany. For instance, in both Emilia-Romagna and Baden Wurttemberg, firms primarily build horizontal linkages which give them a greater degree of freedom and flexibility to diversify and compete, particularly in adverse economic conditions (Piore and Sabel, 1984). In contrast, the Japanese keiretsu firms tend to function within vertical relationships, with firms effectively being allocated specialised tasks within the subcontracting system (Scher, 1997). This means keiretsu firms are primarily reliant upon the orders placed by their prime firm which have become (increasingly) dominant. This is a sharp distinction with the Italian industrial districts, which have no obvious centre of strategic decision making.

1.5. *Japanese Corporate Governance*

The traditional Japanese system of corporate governance also embodies co-operation and stability, with the prevalence of interlocking share-holding

arrangements. A typical listed firm in Japan has extensive share-holdings with its transaction partners and affiliated firms, which include banks, insurance companies, suppliers and trading companies. Since firms hold each other's shares, the reciprocal arrangements promote mutual 'friendly shareholders' which nullifies the external take-over threat (Sheard, 1994). This promotes stability since it enables Japanese firms to take long-term decisions, rather than pursue the short-term objectives of the stock market.

The employer/employee relationship is governed by the lifetime employment policy that was introduced by the post-war Industrial Rationalisation Council. There is also a widespread view that the typical Japanese firm is a more open and decentralised organisation than the Anglo/American hierarchical model (H-mode). According to Aoki (1990), the H-mode is characterised by a hierarchical separation between planning and the implementation of a firm's decisions. The emphasis is upon obtaining economies of specialisation, with employees being trained to perform specific tasks and positions of job seniority being regarded as an incentive for good performance. In contrast, in the J-mode model of the Japanese firm, there is a greater degree of job rotation amongst all employees, with job seniority being afforded less significance. The J-mode's incentive devices are based around the firm's salary structures, with rewards being attributed to good performance and length of service. It is argued that the arrangements provide employees with variety and flexibility in their jobs, whilst also promoting co-operation and positive learning externalities across all the firm's departments. They also involve a significant delegation of power that allows all employees a greater opportunity to participate in the firm's decision-making processes (Aoki, 1990). Indeed, it has been suggested that, since the J-mode encourages employees to become more involved in the organisation and co-ordination of production, it is the employees who are the firm's most important stakeholders (Miwa, 1996).

However, whilst these arrangements may promote flexibility and new initiatives in production, we suggest they typically refer to the decentralisation of operational decision-making; decisions which concern the day to day operations of the firm. As Cowling and Sugden (1998) have argued, these decisions are quite different from strategic decisions, which govern the direction of the firm. Although Aoki (1990), in his description of the J-mode, does not distinguish between the two, he is clear that employees are subordinated to a hierarchical structure since, by various incentive schemes, they 'are induced to comply with management authority without explicit hierarchical direction over daily operation' (p. 13). Furthermore, whilst the share ownership of the corporate group is relatively dispersed, Sheard (1994) maintains that ownership and control is typically concentrated amongst 10 to 20 corporate shareholders, of which financial institutions are a significant component. This suggests that, when it comes to strategic decisions, the Japanese firm is no different from its Anglo/American counterparts, and strategic control is maintained by a corporate elite, usually based in Tokyo (Emmott, 1993).

2. The Emergence of Japan's Transnationals and the Concentration of Strategic Decision Making

2.1. *The Flaw in MITI's Industrial Policy*

As we have argued in Section 1, MITI's role in overseeing Japan's post-war industrial policy, combined with Japan's unique forms of industrial organisation, laid the foundations for the country's extraordinary post-war economic performance. An important feature of MITI's influence were the ministry's administrative powers, the most significant of which were the powers to authorise FDI proposals (Bailey *et al.*, 1994). These powers enabled MITI to control the direction of Japan's changing industrial structure, as well as providing a stable counter-balance to the strategic interests of the economy's large corporate firms. However, over time, Japan's large firms, who sought to become global players, began to challenge MITI's powers and eventually encouraged the Japanese State to relax the FDI restrictions (Mason, 1994). As MITI's influence diminished, the effect was to concede more corporate power and freedom to Japan's large firms, and also allow the Japanese economy to become more open to transnational activity.

Interestingly, this shift in economic power may have been the consequence of MITI's own industrial policy. According to Piore and Sabel (1984) it is apparent that, within MITI's policy of targeting strategic industries, there was a clear prejudice in favour of promoting the larger corporate group firms, a policy akin to the promotion of national champions. The large firms were encouraged to adopt a mass production system, supported by smaller keiretsu firms. The corporate firms became the centre of all Japanese industrial production and began to dominate economic decision-making, often dictating the conditions of contract and modes of production to their keiretsu partners (Piore and Sabel, 1984). Furthermore, as Johnson (1982) notes, the long standing practice of employing retired civil servants enhanced these large corporate firm's close relationships with MITI and provided a channel to influence – and possibly manipulate – economic policy.

It was through these channels that the large corporate firms, during the 1960's, pressurised MITI and the Japanese State into relaxing the restrictions on overseas FDI (Mason, 1994). Large scale production had resulted in Japan's domestic markets becoming saturated with consumer durables and, given Japan's high savings ratio, the subsequent demand deficiencies meant that firms had to turn to world markets to sell their output. Initially, surplus production could be satisfied through exporting to Western markets, a policy that resulted in consistently large trade surpluses. However, the threat of retaliatory trade barriers, especially from the United States, threatened future export growth and, in response, the larger Japanese firms considered the transnational option.[2] It appears that the desire for the large Japanese firms to be part of the global market and to compete, as national champions, with their American and European rivals convinced MITI to liberalise the regulations on

[2] Vernon (1966) pursues the argument that FDI is a logical step in a product's life cycle, whilst Pitelis (1996) suggests that it is deficient domestic demand which initiates outward FDI.

outward FDI. After 1971, all outward FDI proposals were automatically validated without financial limit. The abolition of exchange controls in 1980, which liberalised international capital flows, completed the de-regulation (Mason, 1994).

2.2. *The Growth of Japan's Transnationals*

It is true that, before the lifting of the FDI restrictions, MITI did allow some Japanese firms to invest overseas. These investments were only permitted as long as they appeared conducive to the long-term interests of the Japanese economy. For instance, in the early 1960's, Japanese overseas investments were predominantly in lower value added sectors such as textiles and mining and tended to be located in neighbouring countries in South East Asia and The Pacific Rim. The investments in mining provided Japanese industry with a source of supply in raw materials, whilst Japan's textile firms could use their offshore affiliates as export platforms to specifically overcome the rising trade barriers which were being imposed by the United States (Dicken, 1998).

However, it was not until the liberalised era of the 1970's and 1980's, that Japan's transnationals were able to freely expand their global interests. During this period, a number of factors encouraged Japanese transnationals to invest significantly in the more sophisticated consumer markets of North America and Europe. These included the growth of regional trading blocs – such as the North American Free Trade Area (NAFTA) and the European Union (EU) – and a combination of higher transport and insurance costs, along with the appreciation of the yen following the Plaza Accord in 1985. Exporting from Japan became relatively more expensive and Japan's transnationals had to react to protect and expand their regional and global market shares (Dunning, 1993). As a consequence there was a marked shift in the nature of Japanese FDI into the higher value added sectors, most notably automobiles, chemicals, electronics and semi-conductors.

There is no doubt that the globalisation of Japanese industry has enabled Japan's large transnationals to emerge as dominant players in the world economy. According to the latest UNCTAD (1999) report, Japan is now the home of 17 of the world's top 100 transnationals, who own 15.7% of the global economy's foreign assets – a position second only to that of the corporate sector of the United States. Details of these Japanese transnationals are provided in Table 2, which are ranked in terms of their ownership of foreign assets. They comprise firms from the machinery sector and also Japan's large trading companies. The largest Japanese transnational is Toyota, which is ranked as the sixth largest transnational in the world, and the third largest in the automobile sector. However, the degree of transnationality is greater in companies such as Honda, which owns almost 60% of its assets outside Japan (see Table 2).

In terms of global market shares, Japan's transnationals have made significant advances since the late 1960's. For instance, in 1966, Toyota was the only Japanese owned manufacturer amongst the world's top 10 automobile produ-

Table 2

Japan's Top TNCs Ranked by Ownership of Foreign Assets (Billions of dollars and numbers of employees)

Corporation	Industrial sector	Assets		Sales		Employment		Global rank by foreign assets	
		foreign	total	foreign	total	foreign	total	All TNC's	By Sector
Toyota	Automotive	41.8	105	50.4	88.5	...	159,035	6	3
Nissan Motor	Automotive	26.5	57.6	27.8	49.7	...	137,201	17	7
Sony Corp.*	Electronics	...	48.2	40.3	51.1	...	173,000	21	2
Mitsubishi Corp.	Diversified	21.9	67.1	41.5	120.4	...	8,401	22	1
Honda Motor	Automotive	21.5	36.5	31.5	45.4	...	109,400	24	8
Mitsui & Co Ltd	Diversified	17.9	55.5	52.3	132.6	...	10,944	35	2
Itochu Corp.	Trading	16.7	56.8	48.7	117.7	2,600	8,878	39	1
Nissho Iwai Corp.	Trading	16.6	40.4	32.3	75.5	2,068	6,398	40	2
Sumitomo Corp.	Trading	15.4	43	15.1	95.2	...	8,694	44	3
Matsushita Elect.	Electronics	12.2	62.7	23.6	59.7	...	275,962	55	6
Hitachi Ltd.	Electronics	12	76.6	19.8	63.8	58,000	331,494	56	7
Marubeni Corp.	Trading	11.6	55.9	38.5	103.3	2,827	8,868	58	4
Fujitsu Ltd.	Electronics	11.2	38.8	14.1	37.7	...	180,000	59	9
Mitsubishi Motors	Automotive	9.1	25.1	10.9	28.3	19,600	75,300	70	13
Bridgestone	Tyres	7.2	13.3	9.8	16.7	...	13,049	93	2
Canon Electronics	Electronics	7.0	22	14.6	21.2	41,211	78,767	96	11
Toshiba Corp.	Electronics	6.8	44.9	14.6	41.3	...	186,000	98	12

Notes:
* Data on Sony's foreign assets are not published, although the company report that 62 % of their 'long-lived' assets (i.e. plant and equipment) are located outside Japan (Sony, 1999). UNCTAD (1999) have, therefore, ranked Sony accordingly.
... Data unavailable.
Source: UNCTAD (1999).

cers, with a marginal 2.4% share of the global car market. By 1996, Toyota was in the top three, almost quadrupling its market share to 9.4% and also in the top 10 were Nissan (5.4%), Honda (4.0%) and Mitsubishi (3.3%). In the case of Honda, its global market share has increased 20 fold since 1966 and it is now also the world's leading motorcycle manufacturer. Furthermore, in the Asian automobile markets of Thailand, Malaysia, Indonesia, Taiwan and now China, the dominance of these large-scale Japanese transnationals is even more apparent, where, in some cases, they have combined market shares of 90% (Dicken, 1998). There is a similar story in electronics, particularly within the industry's sub-sectors. Sony is now the world's largest company in audio and video equipment whilst Fujitsu is in the top three of the world's mainframe computer manufacturers (Toyo Keizai, 1999).

In addition to these product market advances, Japanese transnationals are now in a stronger position to bargain more effectively with both world governments and international labour. This enables them to pursue 'divide and rule' strategies, since national governments enjoy the political rewards and workers see the employment benefits of inward investment. In the first stage, the threat of locating elsewhere can enable the transnational to gain lucrative grants and subsidies, a game recently demonstrated by Toyota's ability to successfully play-off both United Kingdom and French governments, before deciding to build a new production site in Lens, northern France. In the second instance, the threat of re-locating production globally, weakens the power of international labour and can depress labour costs. As James (1989) noted, by locating new production units in areas, characterised by high unemployment and low wages, Japanese transnationals have successfully been able to play the international wage game within the Triad markets of Asia, Europe and North America.

3. Japan's Strategic Failure

The liberalisation process has meant that Japan's large corporate firms have been able to pursue their own strategic interests, free from the constraints of the Japanese State. Between 1981 and 1995, Japan's transnationals have invested over $470 billion in overseas subsidiaries which, since 1981, represents a four fold increase, in real terms, in the cumulative value of Japan's overseas capital stock. In addition, the average annual growth in the outward flow of Japanese FDI during this period was 22%, the highest growth rate of any G7 country (UNCTAD, 1997).

This process may have provided benefits for Japan's large corporate firms, but has had serious repercussions for Japan's domestic industrial sectors. In particular, there are now genuine concerns that the expansion of overseas production has exacerbated a 'hollowing out' of Japanese industry which, in the long term, will lead to relative economic decline and stagnation (JSBRI, 1996). We see this relatively unrestrained shift of production by Japan's transnational corporations as contributing to a massive strategic failure of the Japanese economy.

3.1. *The Diversion of Investment*

It is possible that the increase in outward Japanese FDI may have diverted investment from Japan's industrial regions to overseas markets and, consequently, reduced the future potential for indigenous growth and development. This is particularly likely given that, since the early 1970's, the majority of Japanese firms have relied upon net earnings as the major source of net finance for new industrial investment (Corbett and Jenkinson, 1996; Yaginuma, 1997). With imperfect capital markets, Stevens and Lipsey (1992) have shown that transnational firms are likely to distribute their internal generated funds between competing international locations. In this instance, it is interesting to note that MITI (1996) have raised concerns that a substantial number of Japanese firms have recently been investing in offshore production bases, in East Asia, at the expense of domestic sites. MITI (1996) cites the importance of low labour and material costs as the main attraction of these offshore sites.

The effect of foreign labour costs, upon the behaviour of domestic investment, has only recently been subjected to empirical investigation. Cowling and Hollingsworth (1998) derive a standard, domestic, investment function that also includes international wages for four industrial countries. For Japan, they find that a 10% fall in real wages in East Asia reduces aggregate Japanese (domestic) manufacturing investment by 3%. In Tomlinson (1999), a similar approach is adopted, although the analysis is more dis-aggregated and concentrates on the five industries, which comprise Japan's machinery sector.[3] For all industries, in Japan's machinery sector, Tomlinson (1999) finds that the behaviour of domestic investment is significantly sensitive to changes in real wages, not only in East Asia, but also in Europe and North America. Taken together, both sets of results are indicative of the influence of transnational activity upon Japan's domestic investment and highlight the extent to which overseas sites have been increasingly regarded as substitutes for domestic production.

3.2. *Growth in Outsourcing*

One implication of switching investment from Japan to foreign affiliates is that Japan's transnationals will raise their overseas production capacity relative to their domestic operations. In the long run, we would expect this to lead to a notable increase in the proportion of total Japanese manufacturing output, which is outsourced globally. According to research conducted by MITI (1998), this process already appears to be happening and is on a significant upward trend.

In Table 3, we reproduce the recent data on both the growth in and absolute level of Japan's ratio of overseas to domestic production, at both an aggregate manufacturing and sectoral level. A comparison with Germany and the United

[3] The machinery industries are Fabricated metal products, Agricultural and industrial machinery, Electric machinery and electric goods, Transport equipment and Precision tools. In Japan, they collectively account for approximately 43.7% of manufacturing employment, 42.8% of total output and 75% of exports (Whittaker, 1997; Tomlinson, 1999).

Table 3

Comparative Growth of Japanese Manufacturing Production Overseas
Percentage of Domestic Production

Industry	1985	1992	1993	1994	1995	1996	1997
Comparative growth in overseas production							
All Manufacturing (Index 1985 = 100, all countries)							
Japan	100	206.7	246.7	286.7	300	386.7	433.3*
USA	100	156.6	150.6	156.6	172.9	...	
Germany	100	109.6	128.3	138.5	141.6	...	
Proportion of output produced overseas (%)							
Japan's industrial sectors:							
Chemicals	...	4.8	7.0	8.1	8.3	10.0	
Electrical machinery	...	10.8	12.6	15.0	16.8	19.7	
Industrial machinery	...	4.1	5.8	8.1	8.1	11.7	
Precision tools	...	3.6	5.6	6.0	6.6	8.6	
Steel and iron	...	5.0	6.3	5.4	9.2	12.1	
Textiles	...	2.3	3.2	4.0	3.5	7.6	
Transport equipment	...	17.5	17.3	20.3	20.6	24.9	
All Industries	3.0	6.2	7.4	8.6	9.1	11.6	13.0*
Japanese TNC's	8.7	17.3	18.3	22.0	25.1	27.5	
Japanese overseas manufacturing employment:							
Absolute number (millions)		1.1	1.5	1.8	1.8	2.2	
% of domestic employment		7.2	10.8	12.0	12.8	17.2	

Notes: Overseas production ratio = Sales of Japanese affiliates abroad/Sales of domestic companies.
* MITI estimate for 1997.
... Data unavailable.
Source: MITI (1998).

States, in terms of the growth rate in overseas production is also provided. It is wise to treat the statistics with caution given that this type of data is typically collated from annual surveys of transnationals that are vulnerable to variance in both coverage and response rates (Ramstetter, 1996). This qualification aside and, in the absence of any alternative data, Table 3 still provides us with some useful indicators.

The first conclusion from Table 3 is that, in all sectors, there is an increasing move by Japan's transnationals towards overseas production. Since 1985, there has been a four-fold increase in Japan's aggregate overseas production ratio. Indeed, between 1985 and 1995, the growth rate in Japan's overseas production was twice that of both the United States and Germany. At the industry level, between 1992 to 1996, Japanese overseas production more than doubled in chemicals, industrial machinery, iron and steel and precision tools. Not surprisingly, given the prominence of Japan's transnationals in these industries (see Section 2), the main sectors are electrical machinery (19.7%) and transport equipment (24.9%).

Within these sectors, there are also industries, where the level of overseas production has become even more profound. A particular case is the Japanese electronics industry where, according to the Electronic Industries Association

of Japan (EIAJ, 1997, p. 6), 'offshore production, by Japanese affiliates, has now surpassed the domestic totals for almost every consumer electronics product'. Not surprisingly, the EIAJ attribute this trend as being the prime cause in the decline of Japan's domestic consumer electronics industry. Although corporate Japanese output – total production at home and abroad – in this sector is currently at an historical high, domestic production runs are now at less than half the levels they were during their peak in the mid-1980's (EIAJ, 1997).[4]

A similar story can be found in the Japanese automobile industry, another sector in which Japan has traditionally been very competitive. Since 1990, motor vehicle production in Japan has fallen by 25%, although world production has risen by 3.2%. However, as we highlighted in Section 2, the large Japanese car producers continue to enjoy a significant proportion of the global market and Dicken (1998) notes that they are increasingly 'moving towards a greater transnationalism of their production' (p. 342). In particular, Toyota, Nissan and Honda have all stated a medium term ambition to manufacture more cars overseas than in Japan (Dicken, 1998). The result is that Japanese car exports have been falling steadily since 1985 and, for the first time, in 1995, they were exceeded, in both output and revenue, by production from Japanese foreign subsidiaries.

The Japanese consumer electronics and automobile industries are just two examples of sectors in which exports are increasingly being replaced by overseas production, whilst the Japanese home market is gradually being supplied by Japanese affiliates, predominantly based in East Asia (MITI, 1998). Furthermore, as these trends continue, we believe it is only a matter of time before similar outsourcing takes place in Japan's new higher value-added industries, particularly in higher technology and computer research. Indeed, in a 1996 JSBRI survey, it was predicted that, by 2001, the proportion of overseas production in these more profitable sectors, would increase by 150%, whilst the comparable prediction for lower value-added products was an increase of 30% (JSBRI, 1996).

3.3. *The Isolation of Japan's Small Keiretsu Firms*

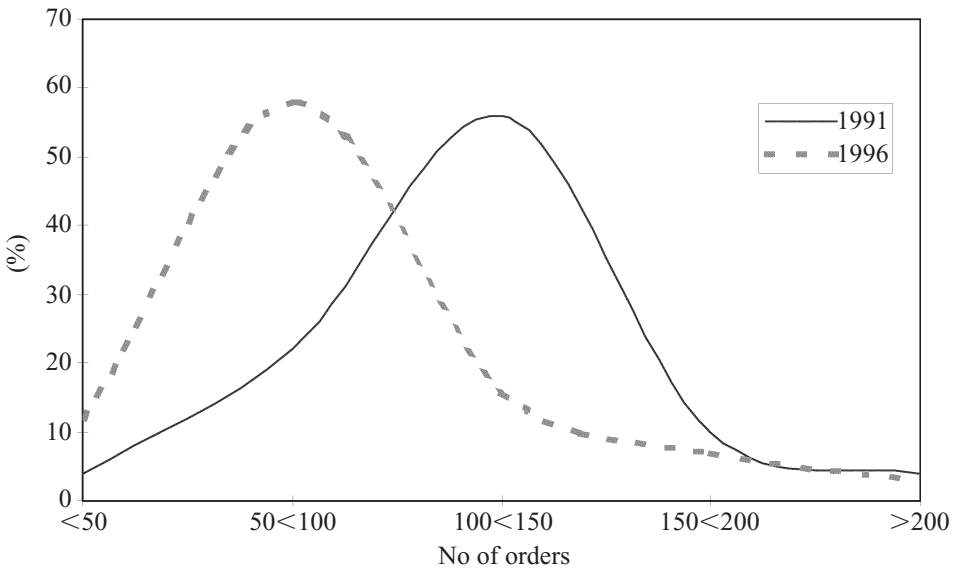
One effect of the increase in Japanese overseas production may be a weakening of the traditional links between Japan's large corporate firms and the keiretsu networks. As the large Japanese transnationals have dispersed their production globally, they are also able to outsource their supply chains on a world scale. Indeed in 1996, Japanese foreign affiliates procured just 37% of their intermediate supplies from Japan, compared with a figure of 55% in

[4] The case of the Japanese television industry provides an illustrative example. In 1978, Japan's overseas affiliates produced 3.2 million television sets, almost a third of Japan's total corporate production. By 1988, the ratio was 50:50. In 1996, Japanese overseas affiliates produced a record 40.5 million colour television sets, over 6 times the domestic figure. In 1996, Japan's domestic output of television sets was a mere 40% of its 1985 level. Japanese production of video tape recorders (VTR's) followed a similar pattern (EIAJ, 1997).

1986 (MITI, 1998). To some extent, the decline in procurement from Japan has been imposed by supranational authorities, such as the European Union, which apply strict 'rules of origin' and 'local content' regulations on the intermediate parts used in the production of final goods, manufactured within the regional trading bloc. Nevertheless, there has been a notable rise in the procurement rate from offshore suppliers in East Asia, which has been at the expense of Japan's domestic keirestu firms (MITI, 1998).

An indication of the demand crisis facing the keiretsu firms is highlighted in a survey of Japanese small businesses by JSBRI (1996). The survey's main conclusions are re-produced in Fig. 1, which reveal that, between 1991 and 1996, there was a significant fall in the volume of orders which are usually placed with the keiretsu firms by Japan's large corporations. In addition to the decline in the volume of orders, the problems for Japan's keiretsu firms are compounded by the fact that they are now in a weaker bargaining position in their relationship with the large Japanese transnationals. Since Japan's transnationals can now access global supply chains, they can also exert downward pressure on the price the keiretsu firms receive for intermediate goods and services. Furthermore, the vertical nature of these linkages has meant the keiretsu firms are 'locked into' producing specialised products, allowing them little scope for the diversity required to attract new markets.

According to JSBRI (1996), it is principally the combination of these factors that have contributed to the sharp decline in the performance of Japan's small businesses during the 1990's. A notable feature of this decline has been lower



Source: Japanese Small Business Research Institute (JSBRI), White Paper 1996

Fig. 1. *Changes in Order Volumes Placed with Keiretsu Firms (1991–1996)*

profitability and concerns about the long-term viability of Japan's small firms. In Table 4, we provide details of both the five-year average, gross profit margin and the rate of return on capital (ROCE), for Japanese small firms, over three time periods since 1980. The ratios clearly indicate that, between 1992 and 1997, both profit margins and the return to capital investment fell quite dramatically from the levels attained in the 1980's. The decline has affected the majority of Japanese small firms in manufacturing, but it has been distinctly profound in those sectors, which, over the same period, also experienced a significant rise in the overseas production ratio (see Table 3).

To some extent, the statistics in Table 4 are reflective of the long cyclical downturn that the Japanese economy has suffered since the late 1980's. However, in our view, the problems for Japan's small firms have been exacerbated by the global activities of Japan's transnationals during the 1990's.[5] The growth in outsourcing has created a demand crisis for the keiretsu networks, leaving Japan's small firms isolated and often with a struggle to earn sufficient revenue to repay long-term loan commitments. Since 1991, there has been an unprecedented and continual rise in Japanese small business failures and bankruptcies whilst new small firm investment has been particularly slow (Nikkei Weekly, 19/10/98). Indeed, between 1991 and 1995, the total number of small firms in the Japanese economy fell by 10% (JSBRI, 1996). This compares with other industrialised countries – such as the United States and the United Kingdom – where there has been a noted resurgence in small firm activity (Whittaker, 1997).

We believe that the shift to overseas production has precipitated an unwelcome structural change within Japan's industrial economy and accelerated

Table 4

The Performance of Japan's Small Firms

	All manufacturing	Industrial machinery	Electrical equipment	Transport equipment
Gross profit margin				
1980–85	2.5	3.8	2.8	2.3
1986–91	3.5	4.2	3.7	3.3
1992–97	1.6	0.9	1.4	1.5
Return on Capital employed				
1980–85	5.4	6.3	6.3	5.0
1986–91	5.6	6.0	6.3	5.5
1992–97	3.2	2.7	3.4	3.3

Notes: Gross profit margin = ratio of gross profit/gross sales.
Return on capital employed (ROCE) = ratio of recurring profits to total capital.
Small firms relate to companies with 300 employees or less.
Source: Japanese Statistical Yearbook (various issues).

[5] Clearly, as with other countries, Japan's small firm sector contains many relatively backward elements that may contribute to business failure: for a detailed analysis of the sector, see Whittaker (1997).

a 'hollowing out' process. In particular, the traditional role of the keiretsu, once a key feature of Japan's industrial structure is being diminished. This is borne out in a recent statement by Carlos Ghosn, the (Renault appointed) Chief Operating Officer of Nissan. Outlining the future for Nissan, Ghosn makes it clear that 'maintaining keiretsu ties, complete with cross-shareholdings and production, personnel and technology exchanges, was not an objective ... the question is whether suppliers will commit to 20% cost reductions for Nissan in a credible way' (Nikkei Weekly, 25/10/99).

The isolation of Japan's small firms has also expedited a contraction in both the size and number of industrial keiretsu networks. For instance, consider the Ota-ku Ward of Tokyo, once a large urban industrial area that thrived upon promoting 'specialist networks' of keiretsu firms. In recent years, there has been a dramatic decrease in industrial activity within the region, as small firms have struggled to sustain demand, whilst others have followed their main contractor overseas in order to maintain their vertical supply chains. There are now genuine fears that Ota-ku will lose her 'specialist networks' completely, reducing the area's functional vitality and raising the spectre of long-term economic decline (JSBRI, 1996).

Whilst we have emphasised the negative consequences of outsourcing for Japan's small firms, Whittaker (1997) maintains 'small firms are not simply passive victims of internationalisation ... such pressures act as a spur for further innovation'. He notes that Japan's small firms 'have established their own regional division of labour (within Asia) through trading and manufacture abroad, either individually or in consortia' (p. 60). Yet further on, Whittaker (1997) is aware that 'surveys show that many small firms either pull out or ''fade out'' (i.e. divest) their foreign investments, with serious consequences for the company' (p. 60). It seems fairly clear then, that moving offshore is a very different proposition for the small Japanese firm than it is for the corporate giant.

3.4. *A Stagnant Macro Economy*

The growth in Japanese transnational production will also have both short and long-term implications for Japan's macro economy. We may initially expect that outsourcing production will adversely affect Japan's current account in the Balance of Payments, which, consequently, will lower both domestic output and manufacturing employment. In the long run, the demise of the keiretsu relationships and the transfer of higher value added activities overseas will reduce both total factor productivity growth and international competitiveness.

It is interesting to note that MITI (1998) provide some (preliminary) empirical evidence, which may suggest a link between Japan's current stagnant economy and Japanese transnational activity. In addition to providing estimates for the overseas production ratio, the MITI annual surveys publish estimates of the net effects of overseas production upon Japan's trade balance. MITI also calculate the repercussions for both Japan's domestic production

and employment. The calculations take account of both the positive and negative aspects of outsourcing and include both export induction effects, such as the procurement of capital and intermediate goods from Japan, along with estimated export substitution and reverse import effects.

In Fig. 2, the net effects of overseas production, on both the trade balance and domestic output, have been deflated by Gross Domestic Product (GDP), and are presented graphically. The graphs clearly show that, since 1992, there has been an increasingly negative impact upon Japan's domestic economy. With regards to the trade balance, there are particular concerns about the significant rise in the proportion of reverse imports, from overseas affiliates, into Japan. In 1996, these accounted for 11.2% of Japan's total imports, of which 80% were from Asia (MITI, 1998). The negative impact of Japanese outsourcing also appears consistent with the recent decline, in both nominal and real terms, of Japan's persistent long running trade surplus which, in turn, has contributed to the stagnant growth in domestic output (OECD, 1997).

The effects of outsourcing on output growth have also had implications for Japanese employment policy. Traditionally, Japan has been able to maintain full-employment through institutional arrangements, such as Lifetime Employment Guarantees and a government policy of promoting public works programmes to take up surplus labour (Johnson, 1982). However, since 1992, the Japanese unemployment rate has more than doubled to 5.0% which, for the first time in the post-war era, is now higher than that of the United States. Although, this figure may still appear low by European standards, it is on an upward trend and is expected to climb much higher, given that conventional Japanese employment polices are beginning to be regarded as being unfeasible and unsustainable in the global economy (Katz, 1998).

According to MITI's (1998) calculations, outsourcing has had an increasingly negative impact upon Japan's domestic employment, during the 1990's

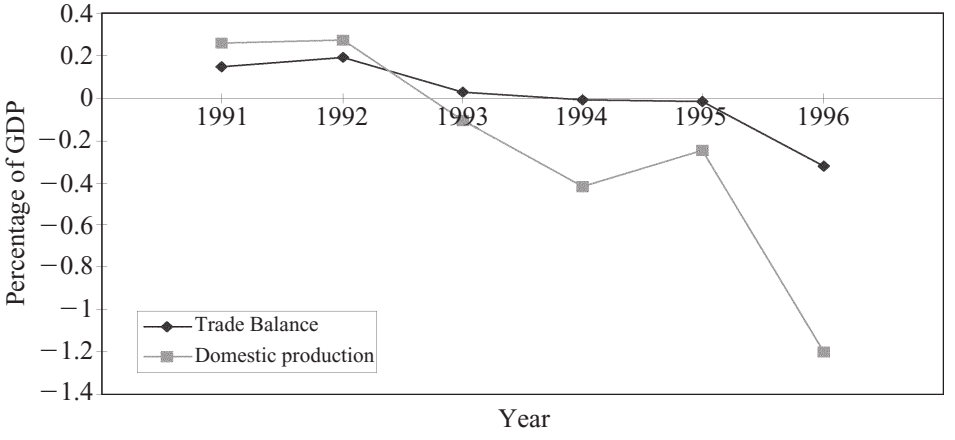
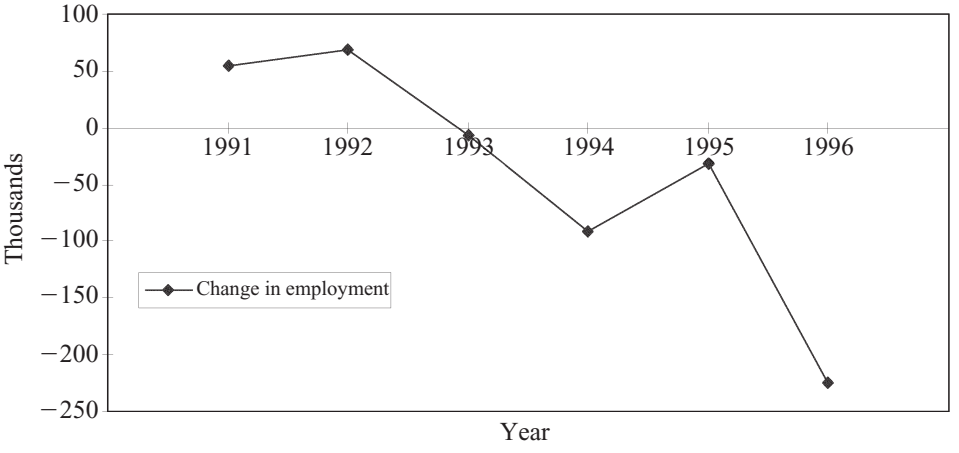


Fig. 2. *Net Impact of Japanese Outsourcing on Trade Balance and Domestic Production as a Proportion of GDP (1991–1996)*

(see Fig. 3). It is no coincidence that officially, between 1992 and 1996, Japan's domestic manufacturing employment, fell by over one million (a fall of approximately 10%, (Katz, 1998)), whilst the number of workers employed in overseas (manufacturing) subsidiaries has more than doubled to 2.22 million, representing 17.2% of Japan's domestic workforce (see Table 3). Moreover, MITI (1996) estimate that, by 2001, the expansion of Japanese overseas activities will further reduce domestic (manufacturing) employment by 1.25 million and weaken GDP growth by 0.66% per annum.

It is, however, in the long term, the isolation and widespread closure of Japan's small industrial firms which will hamper Japan's hopes for economic recovery and a revival in manufacturing employment (EPA, 1995). The decline of industrial activity, in the keiretsu networks, reduces the potential for Japan's domestic industries to re-generate the agglomeration economies and associated increasing returns, which facilitate domestic and international competitiveness and contribute to economic growth. Indeed, Japanese total factor productivity growth – a useful indicator of agglomeration effects – has been declining in all of Japan's industrial sectors since the late 1980's (Jones, 1995; JETRO, 1997).

Finally, we should note that it is unlikely that we have, as yet, seen the full effects of the 'hollowing out' of the Japanese economy, given that the shift to overseas production appears to be on an increasingly upward trend. We also believe this process will have implications for Japan's service sector. Contained within the movement of Japan's transnationals, there is also an overseas transfer of service sector activity: design, research and development and financial services. This movement may be less developed than in the case of industrial production, but we would expect it to grow to significance in the



Source: MITI (1998)

Fig. 3. *Net Impact of Japanese Outsourcing on Domestic Employment (1991–1996)*

future. Consequently, in the steady state equilibrium, Japanese unemployment and corporate failures will probably rise much higher than present levels and the Japanese economy is likely to follow a lower and less stable, long-term development path.

4. Concluding Comments

A development policy that relies centrally on the cultivation of the interests of the transnational corporations is likely eventually to raise issues of strategic failure. To the extent that the State acts in the public interest by playing a part in the shaping of corporate strategies, this mode of development may create economic success, but it is an economic success that is unlikely to be sustainable. We see Japan as a case in point. This paper has argued that Japan's present economic stagnation primarily reflects a structural change that has occurred because of the activities of Japan's large transnationals. We would not, of course, suggest that monetary and financial factors, and related exchange rate movements, have not played a part in the stagnation of the Japanese economy. There are many features of Japanese institutions and policy-making, which have undoubtedly played a significant role in both precipitating and extending the crisis. Yet, underpinning these explanations, we see a more fundamental one of the changing structure of production created by Japan's large transnationals. In particular, the growth in outsourcing has had serious implications for Japan's trade balance, domestic production and employment, whilst Japan's keiretsu firms have become increasingly isolated. This has also had important repercussions for macro economic policy, industrial development and future economic growth.

The scenario we have presented implies a pessimistic vision of Japan's economic future. Strategic failure lies in the concentration of strategic decisions within the controlling groups of corporate Japan. There is no reason to suppose that their decisions will serve the wider public interest. We have explored the ways in which such decisions have led to a development path that appears to depart significantly from one guided by the public interest. To move towards such a path, we would argue that Japan should face up squarely to the underlying issue and shape a development path which would, over time, lead the economy progressively away from the outright dominance of the large Japanese transnationals towards a more diffused structure of decision making more likely to reflect the broader public interest. In particular, we would advocate the creation of a stronger small firm base within the Japanese economy. For its sustainability, this will necessitate the development of networks of small firms within something like industrial districts, so that although the unit of production, in each sector, is small, the system of production is large. This will have to be augmented with a substantial public infrastructure and the development of research and development facilities serving the whole network. An important adjunct to such a localised network in Japan would be an extended web of relationships with similar small firm networks elsewhere; for detailed proposals see Cowling and Sugden (1999). This might form the

basis for the development of a multinational economy with quite different characteristics to the present transnational economy created by the corporate giants. It is our view that such a multinational economy is more likely to meet the broader public interests of the nations involved.

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